



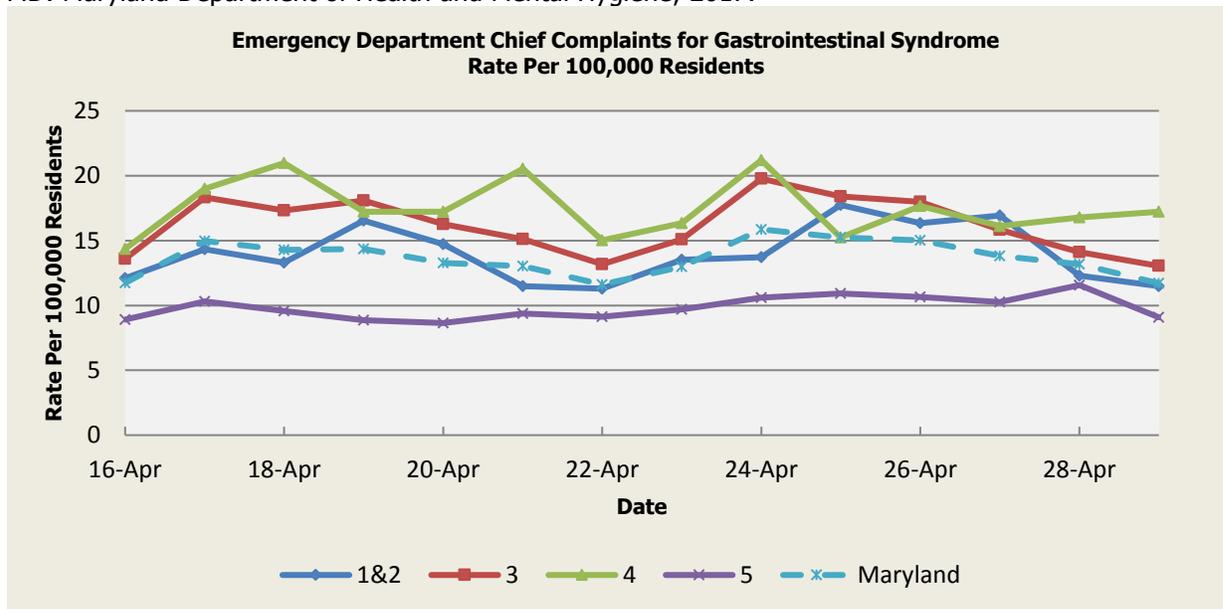
May 05, 2017

**Public Health Preparedness and Situational Awareness Report: #2017:17
Reporting for the week ending 4/29/17 (MMWR Week #17)**

CURRENT HOMELAND SECURITY THREAT LEVELS
National: No Active Alerts
Maryland: Level Four (MEMA status)

SYNDROMIC SURVEILLANCE REPORTS

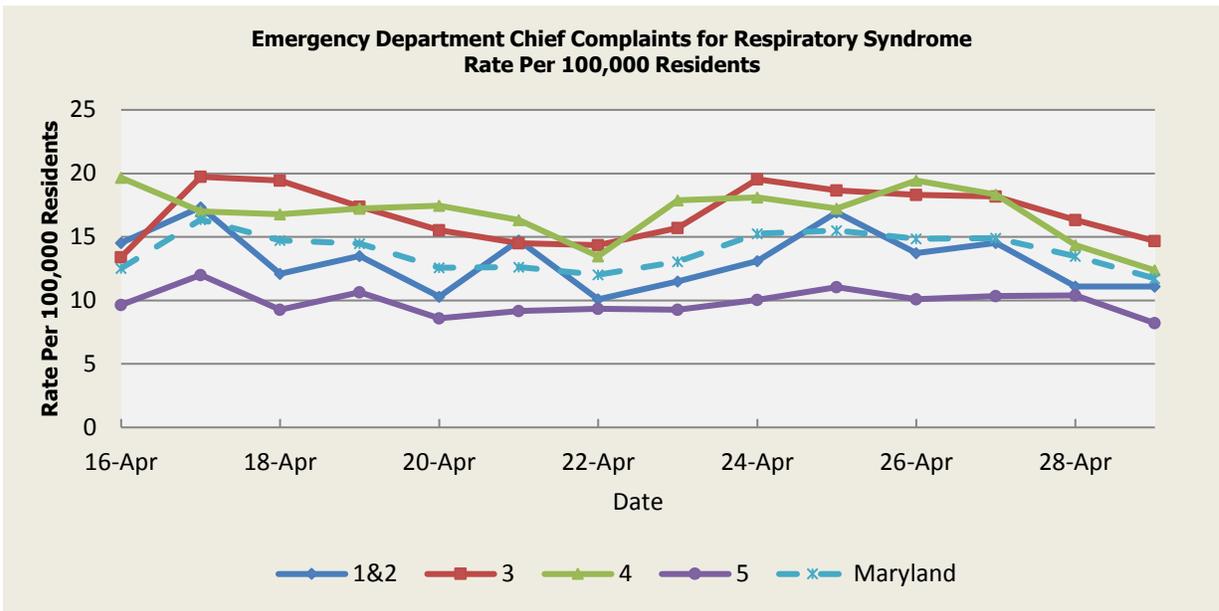
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics): Graphical representation is provided for all syndromes (excluding the "Other" category; see Appendix 1) by Health and Medical Regions (See Appendix 2). Emergency department chief complaint data is presented as rates per 100,000 residents using data from the 2010 census. Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE). Baltimore, MD: Maryland Department of Health and Mental Hygiene; 2017.



There was one (1) Gastrointestinal Syndrome outbreak reported this week: one (1) outbreak of Gastroenteritis associated with a Daycare Center (Region 5).

Gastrointestinal Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.91	15.11	15.43	10.30	13.11
Median Rate*	12.91	14.80	15.02	10.22	12.95

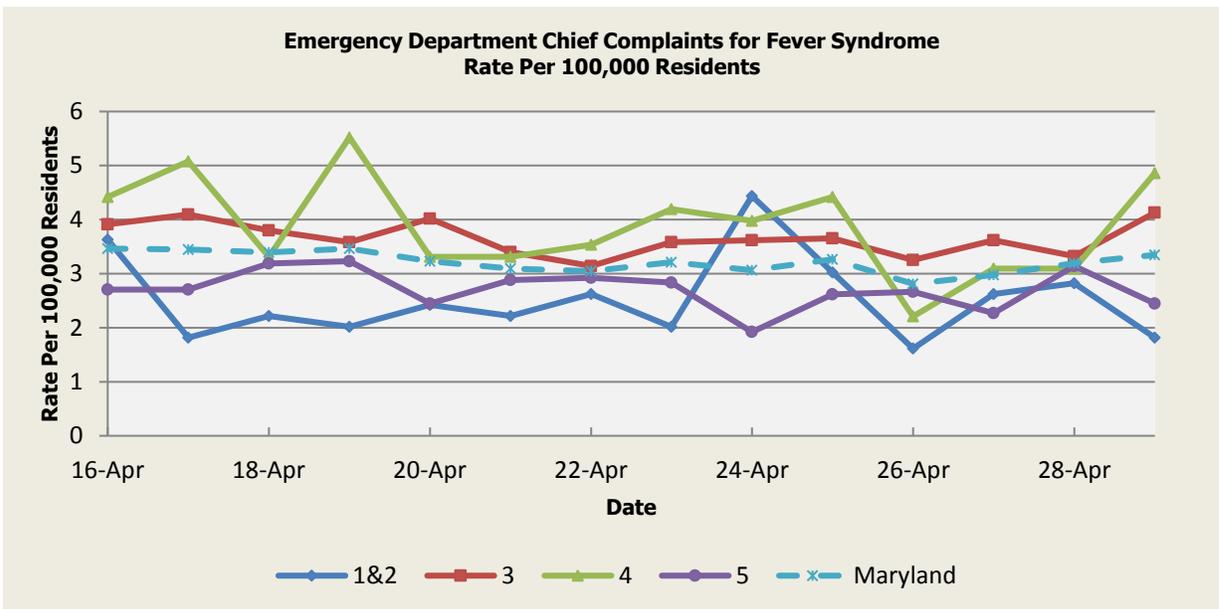
* Per 100,000 Residents



There were no Respiratory Syndrome outbreaks reported this week.

Respiratory Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	12.05	14.46	14.35	9.96	12.53
Median Rate*	11.70	13.88	13.91	9.65	12.05

* Per 100,000 Residents

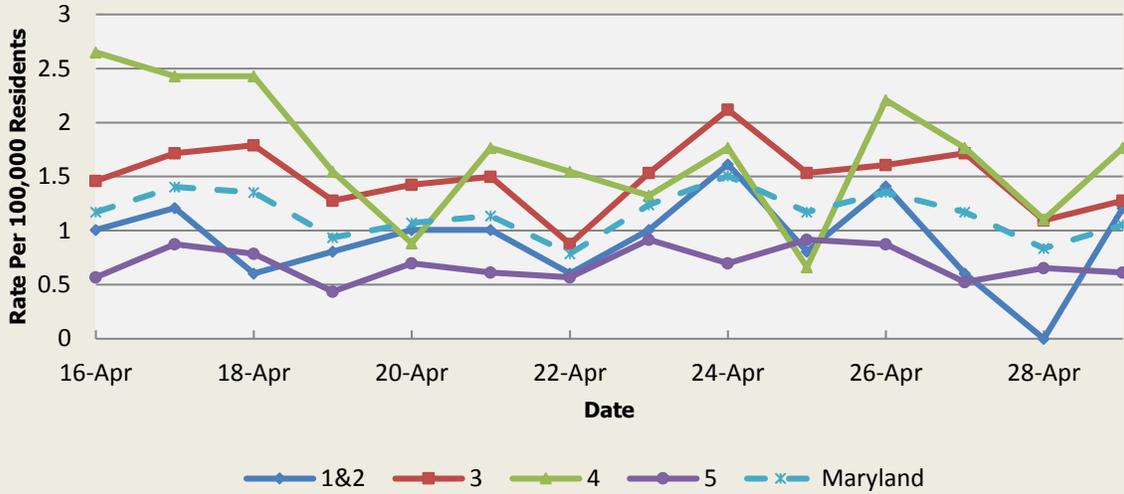


There were no Fever Syndrome outbreaks reported this week.

Fever Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.03	3.87	3.98	3.08	3.51
Median Rate*	2.82	3.76	3.75	2.97	3.40

Per 100,000 Residents

**Emergency Department Chief Complaints for Localized Lesion Syndrome
Rate Per 100,000 Residents**



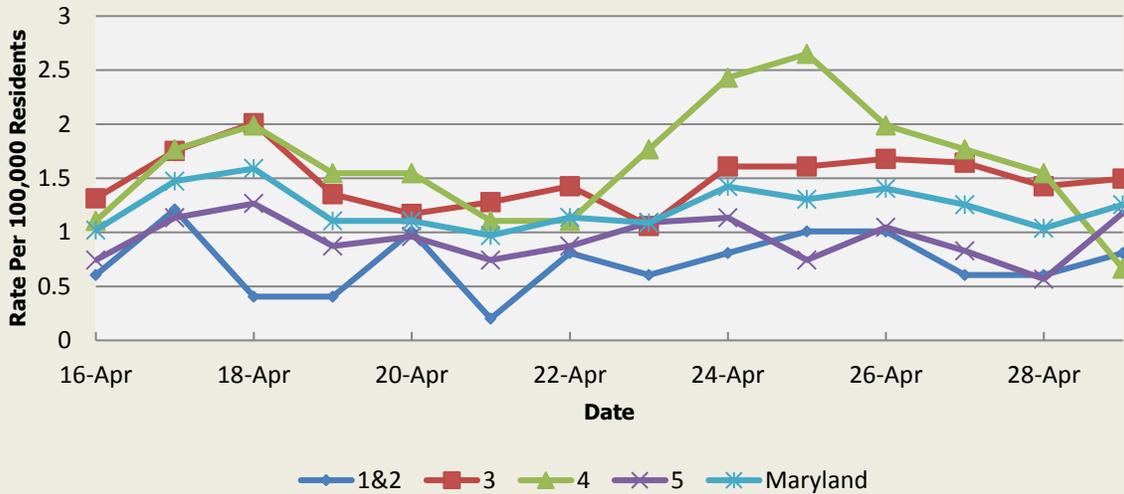
There were no Localized Lesion Syndrome outbreaks reported this week.

**Localized Lesion Syndrome Baseline Data
January 1, 2010 - Present**

Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.04	1.89	2.03	0.96	1.47
Median Rate*	1.01	1.83	1.99	0.92	1.42

* Per 100,000 Residents

**Emergency Department Chief Complaints for Rash Syndrome
Rate Per 100,000 Residents**



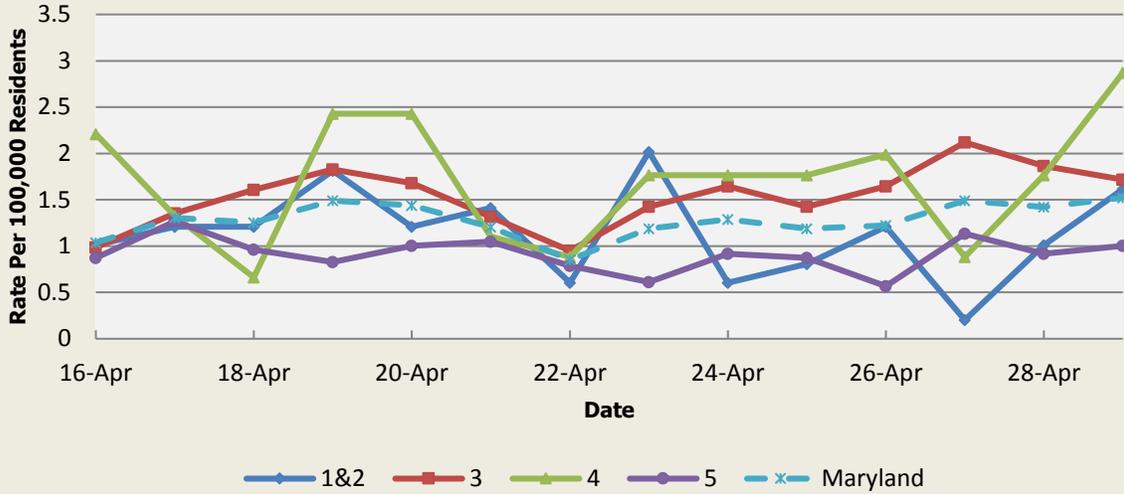
There were no Rash Syndrome outbreaks reported this week.

**Rash Syndrome Baseline Data
January 1, 2010 - Present**

Health Region	1&2	3	4	5	Maryland
Mean Rate*	1.25	1.75	1.77	1.03	1.43
Median Rate*	1.21	1.68	1.77	1.00	1.39

* Per 100,000 Residents

**Emergency Department Chief Complaints for Neurological Syndrome
Rate Per 100,000 Residents**

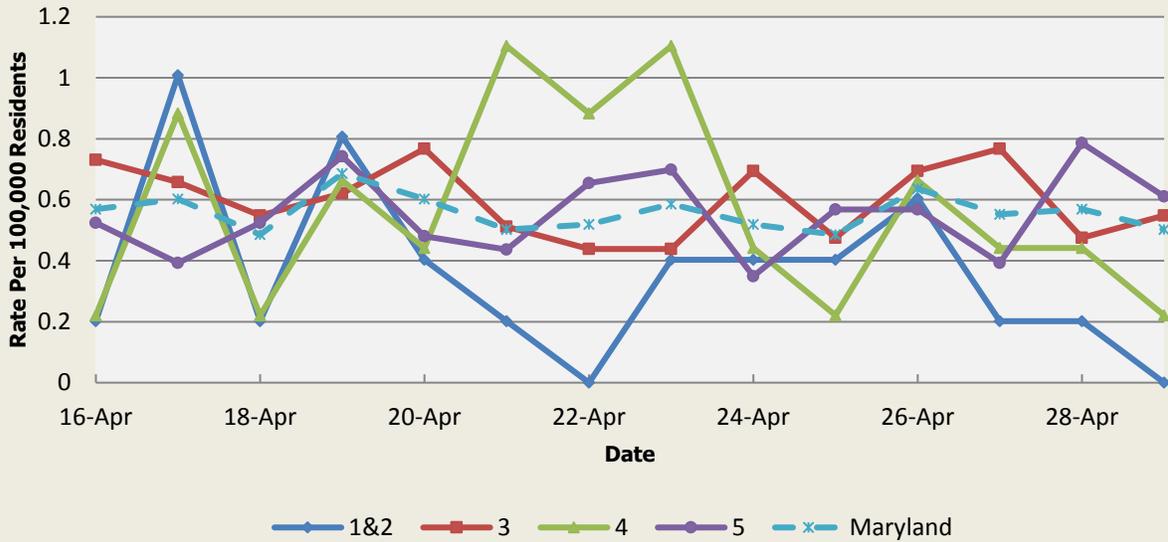


There were no Neurological Syndrome outbreaks reported this week.

Neurological Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.65	0.80	0.69	0.51	0.67
Median Rate*	0.60	0.69	0.66	0.48	0.59

* Per 100,000 Residents

**Emergency Department Chief Complaints for Severe Illness or Death Syndrome
Rate Per 100,000 Residents**

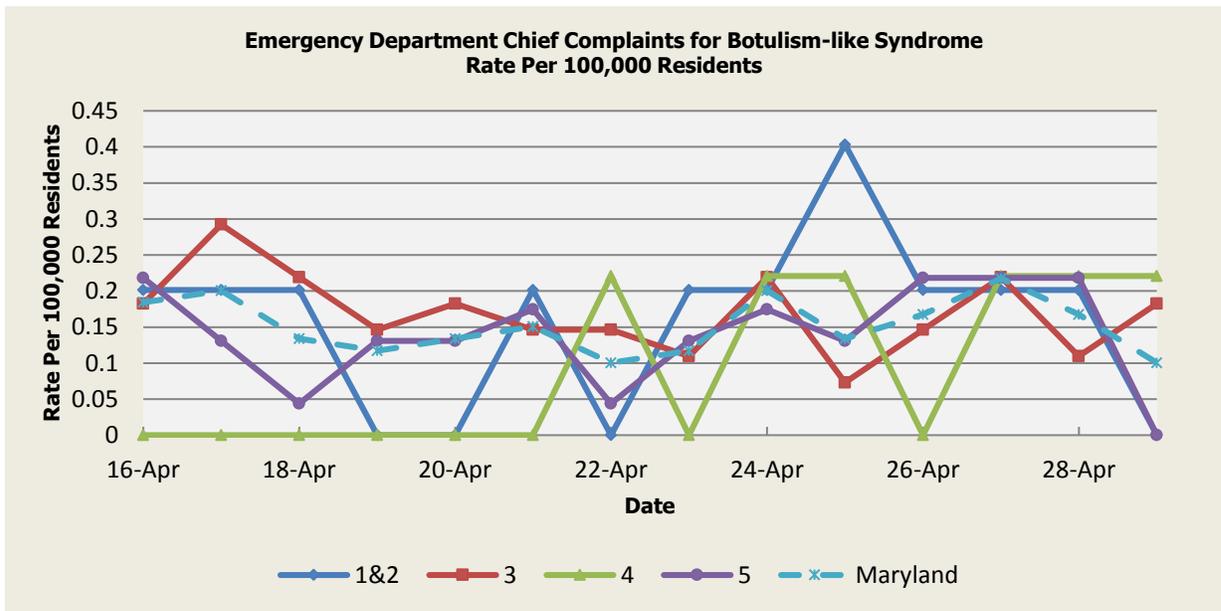


There were no Severe Illness or Death Syndrome outbreaks reported this week.

Severe Illness or Death Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.65	0.92	0.81	0.46	0.71
Median Rate*	0.60	0.91	0.66	0.44	0.70

* Per 100,000 Residents

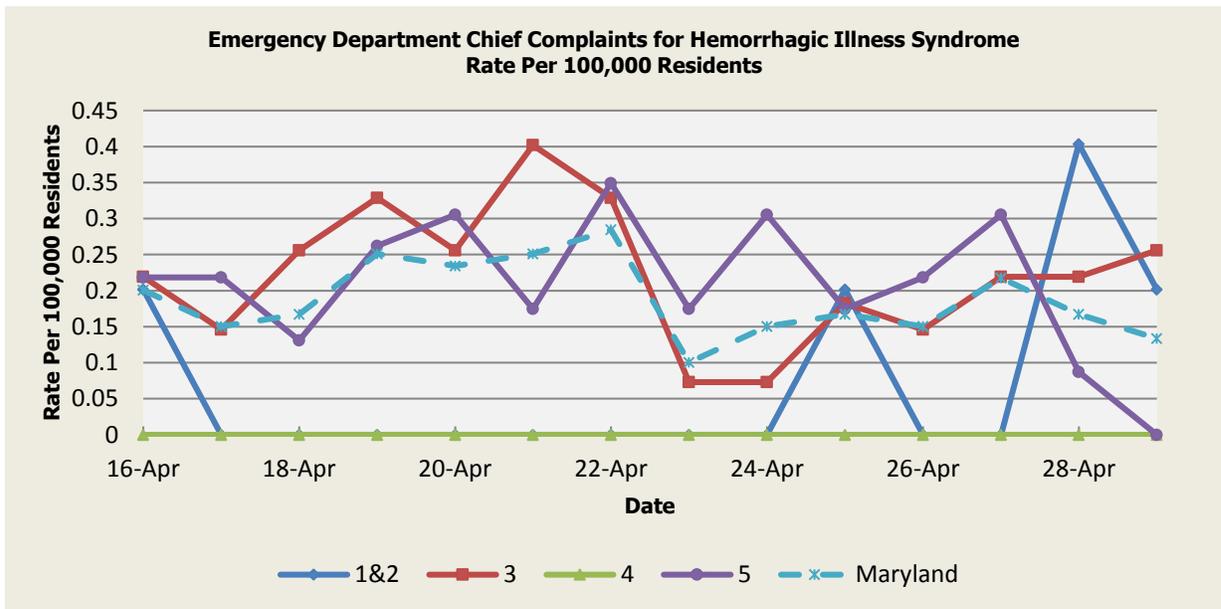
SYNDROMES RELATED TO CATEGORY A AGENTS



There was an appreciable increase above baseline in the rate of ED visits for Botulism-like Syndrome on 04/16 (Regions 1&2,5), 04/17 (Regions 1&2,3,5), 04/18 (Regions 1&2,3), 04/19 (Region 5), 04/20 (Region 5), 04/21 (Regions 1&2,5), 04/22 (Region 4), 04/23 (Regions 1&2,5), 04/24 (Regions 1&2,3,4,5), 04/25 (Regions 1&2,4,5), 04/26 (Regions 1&2,5), 04/27 (Regions 1&2,3,4,5), 04/28 (Regions 1&2,4,5), 04/29 (Region 4). These increases are not known to be associated with any

Botulism-like Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.06	0.10	0.04	0.06	0.07
Median Rate*	0.00	0.07	0.00	0.04	0.05

* Per 100,000 Residents

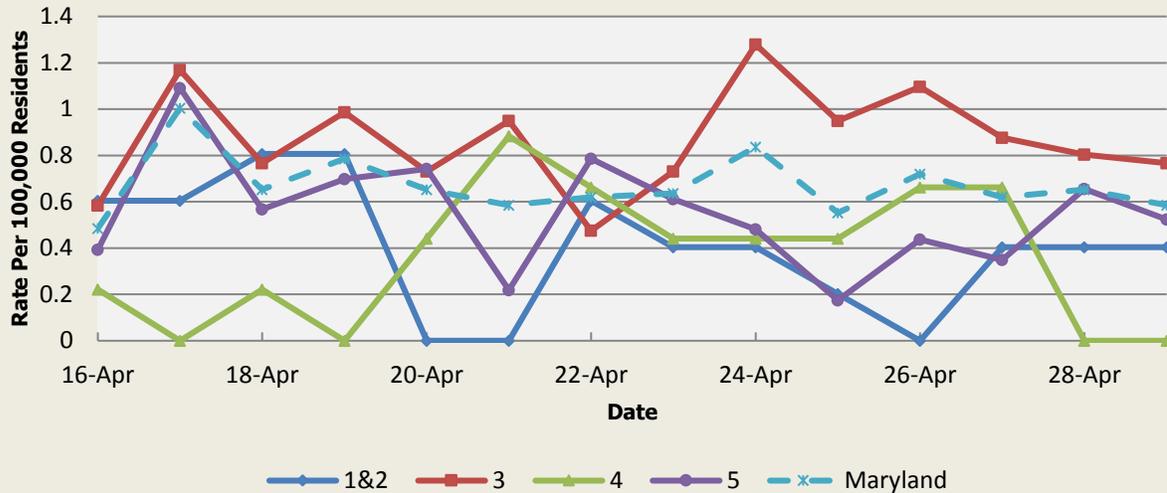


There was an appreciable increase above baseline in the rate of ED visits for Hemorrhagic Illness Syndrome on 04/16 (Regions 1&2,5), 04/17 (Region 5), 04/19 (Regions 3,5), 04/20 (Region 5), 04/21 (Region 3), 04/22 (Regions 3,5), 04/24 (Region 5), 04/25 (Regions 1&2), 04/26 (Region 5), 04/27 (Region 5), 04/28 (Regions 1&2), 04/29 (Regions 1&2). These increases are not known to be associated with any outbreaks.

Hemorrhagic Illness Syndrome Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.03	0.13	0.03	0.09	0.10
Median Rate*	0.00	0.04	0.00	0.04	0.05

* Per 100,000 Residents

**Emergency Department Chief Complaints for Lymphadenitis Syndrome
Rate Per 100,000 Residents**



There was an appreciable increase above baseline in the rate of ED visits for Lymphadenitis Syndrome on 04/17 (Regions 3,5), 04/18 (Regions 1&2), 04/19 (Regions 1&2,5), 04/20 (Region 5), 04/21 (Region 4), 04/22 (Region 5), 04/24 (Region 3), 04/26 (Region 3), 04/28 (Region 5). These increases are not known to be associated with any outbreaks.

**Lymphadenitis Syndrome Baseline Data
January 1, 2010 - Present**

Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.31	0.53	0.35	0.32	0.41
Median Rate*	0.20	0.40	0.22	0.26	0.33

* Per 100,000 Residents

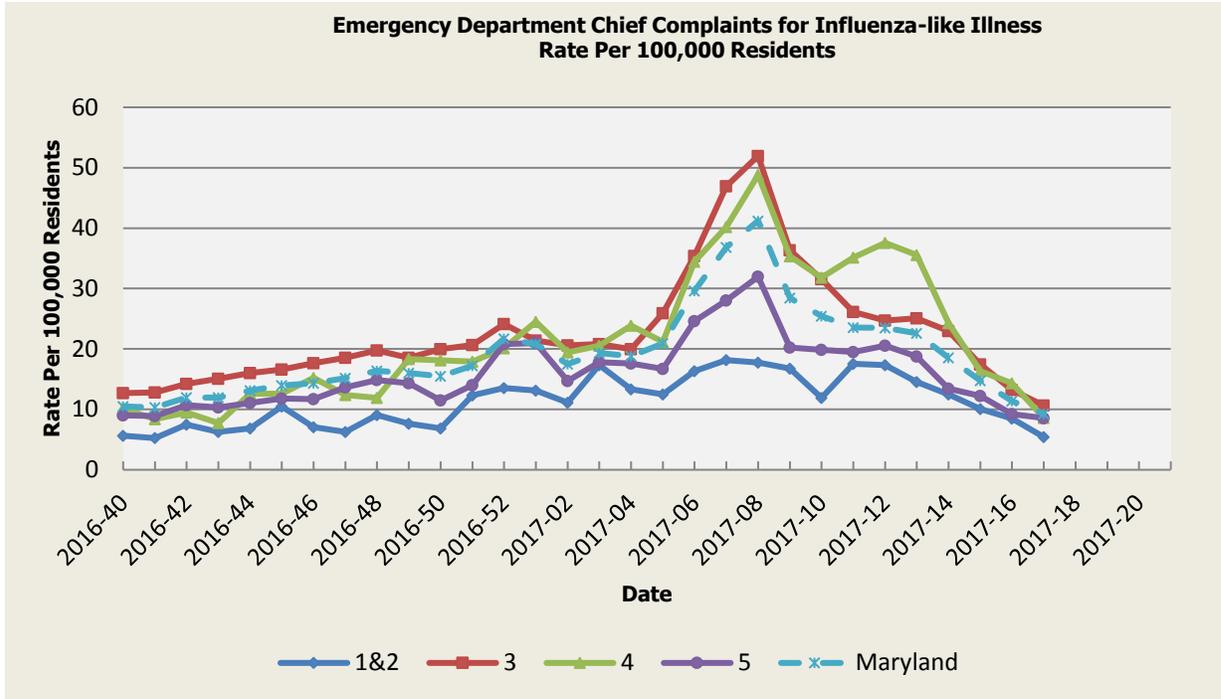
MARYLAND REPORTABLE DISEASE SURVEILLANCE

Condition	Counts of Reported Cases†					
	April			Cumulative (Year to Date)**		
Vaccine-Preventable Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Aseptic meningitis	19	29.4	28	53	111	106
Meningococcal disease	0	0.2	0	1	2	2
Measles	0	0	0	0	0	0
Mumps	0	9.6	0	2	18	0
Rubella	0	0.2	0	0	0.4	0
Pertussis	3	14.2	11	25	53	46
Foodborne Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Salmonellosis	41	50.4	48	154	195	180
Shigellosis	18	13.4	15	64	61	61
Campylobacteriosis	38	49.6	46	179	171.8	175
Shiga toxin-producing Escherichia coli (STEC)	2	5.6	5	15	17	18
Listeriosis	2	0.8	1	7	2.6	3
Arboviral Diseases	2017	Mean*	Median*	2017	Mean*	Median*
West Nile Fever	0	0	0	0	0	0
Lyme Disease	29	80.4	71	189	254.8	235
Emerging Infectious Diseases	2017	Mean*	Median*	2017	Mean*	Median*
Chikungunya	0	0	0	0	0.2	0
Dengue Fever	0	1.2	1	0	4	3
Zika Virus***	0	0	0	0	2.8	0
Other	2017	Mean*	Median*	2017	Mean*	Median*
Legionellosis	1	4.4	5	20	23.6	25

NEDSS data: Maryland National Electronic Disease Surveillance System (NEDSS). Baltimore, MD: Maryland Department of Health and Mental Hygiene; 2017. † Counts are subject to change *Timeframe of 2011-2017**Includes January through current month. *** As of May 03, 2017, the total [Maryland Confirmed and Probable Cases of Zika Virus Disease and Infection](#) for 2017 is 20.

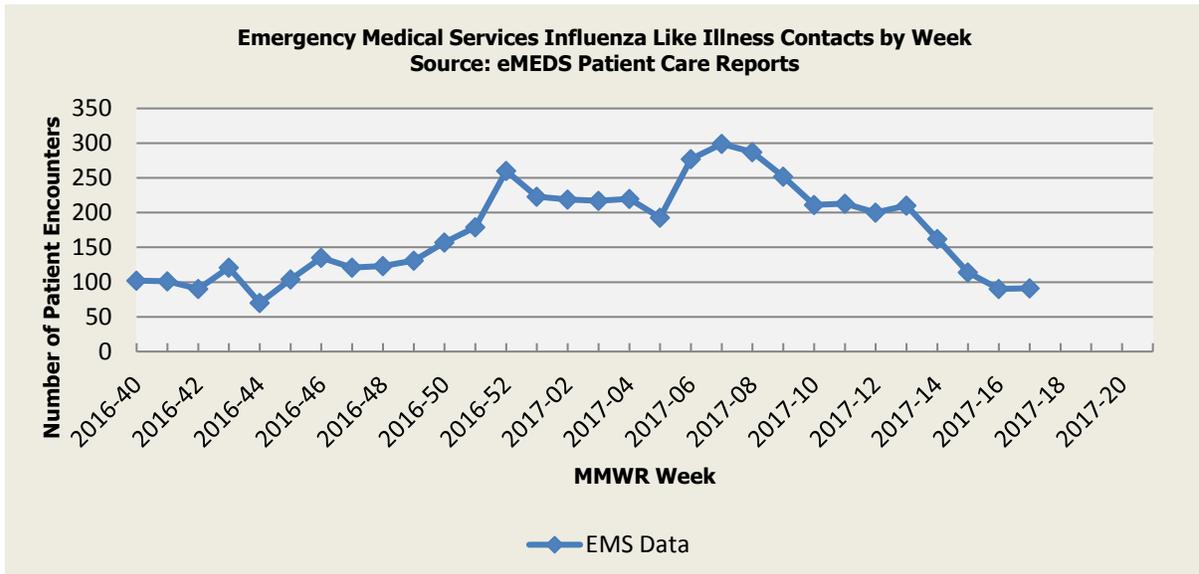
SYNDROMIC INFLUENZA SURVEILLANCE

Seasonal Influenza reporting occurs from MMWR Week 41 through MMWR Week 20 (October through May). Seasonal Influenza activity for Week 17 was: Local Geographic Spread with Minimal Intensity.



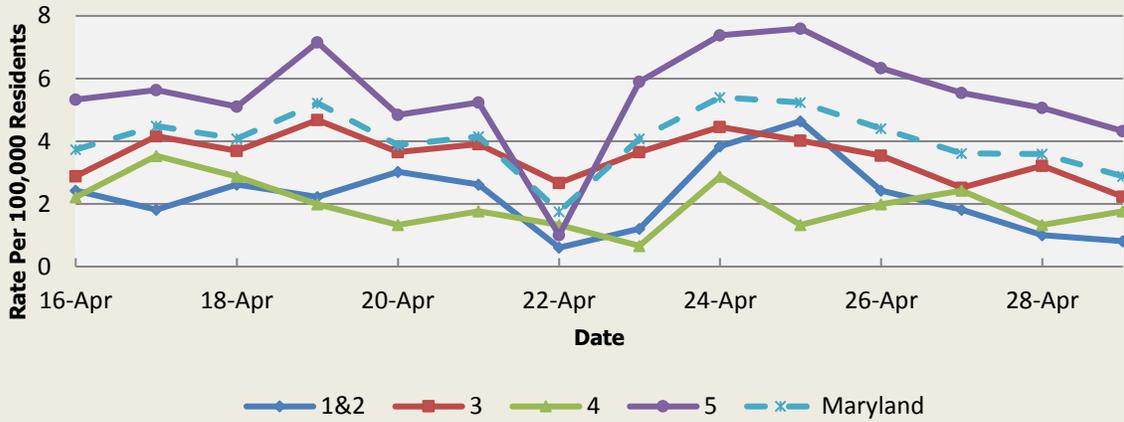
Influenza-like Illness Baseline Data Week 1 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	207.15	276.66	253.84	239.93	255.09
Median Rate*	7.66	9.63	9.05	8.51	9.00

* Per 100,000 Residents



Disclaimer on eMEDS flu related data: These data are based on EMS Pre-hospital care reports where the EMS provider has selected "flu like illness" as a primary or secondary impression of a patient's illness. This impression is solely based on the signs and symptoms seen by the provider, not on any diagnostic tests. Since these numbers do not include all primary or secondary impressions that may be seen with influenza the actual numbers may be low. These data are reported for trending purposes only.

**Over-the-Counter Medication Sales Related to Influenza
Rate Per 100,000 Residents**

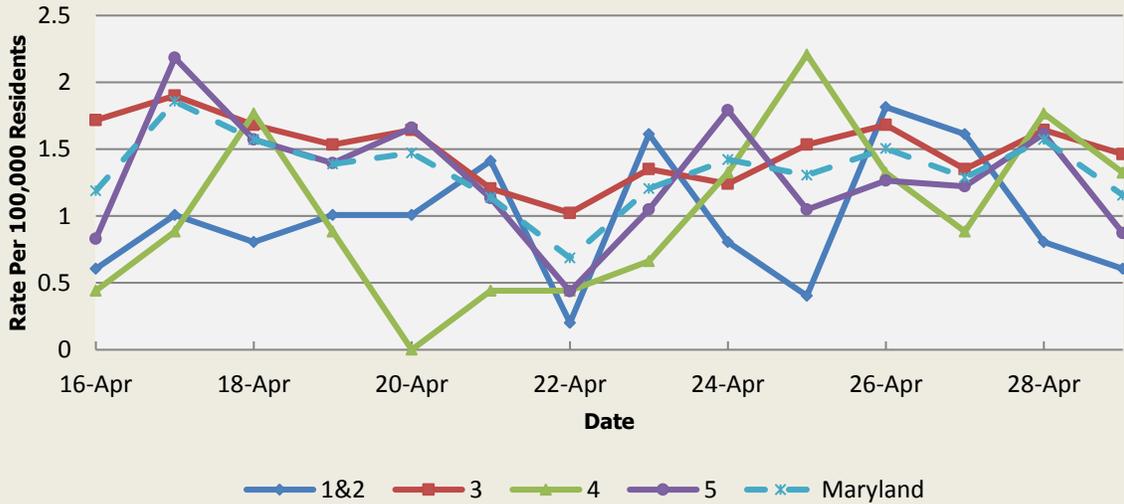


There was not an appreciable increase above baseline in the rate of OTC medication sales during this reporting period.

OTC Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.77	4.91	2.73	8.45	6.01
Median Rate*	3.23	4.38	2.43	8.03	5.52

* Per 100,000 Residents

**Over-the-Counter Thermometer Sales
Rate Per 100,000 Residents**



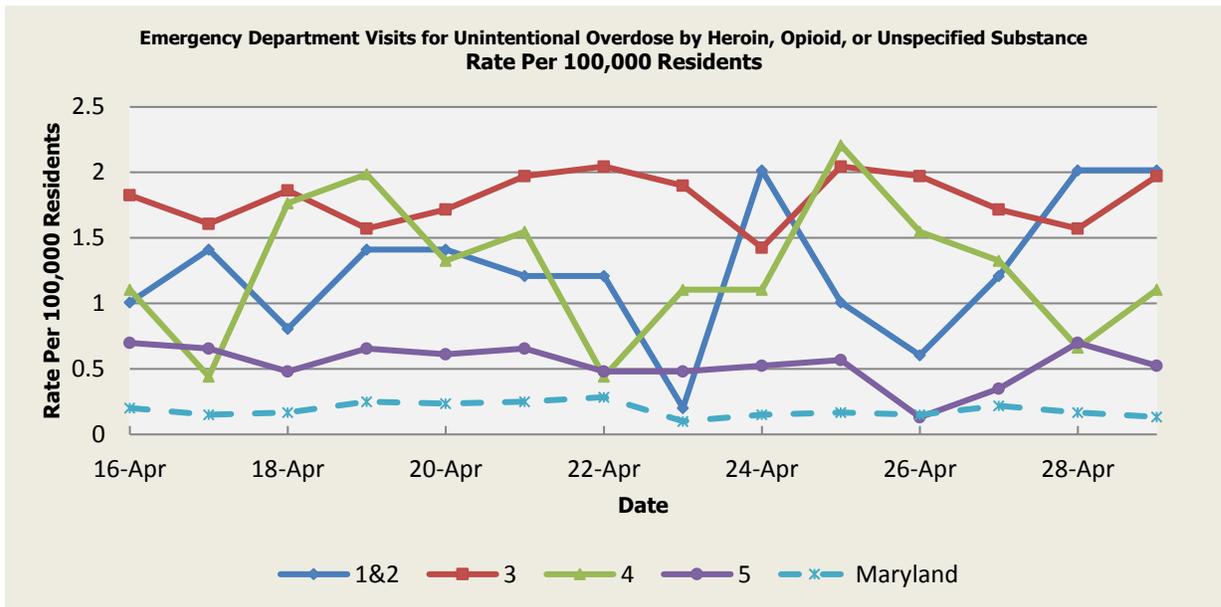
There was not an appreciable increase above baseline in the rate of OTC thermometer sales during this reporting period.

Thermometer Sales Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	3.37	3.23	2.50	4.32	3.61
Median Rate*	3.02	3.03	2.43	4.06	3.36

* Per 100,000 Residents

SYNDROMIC OVERDOSE SURVEILLANCE

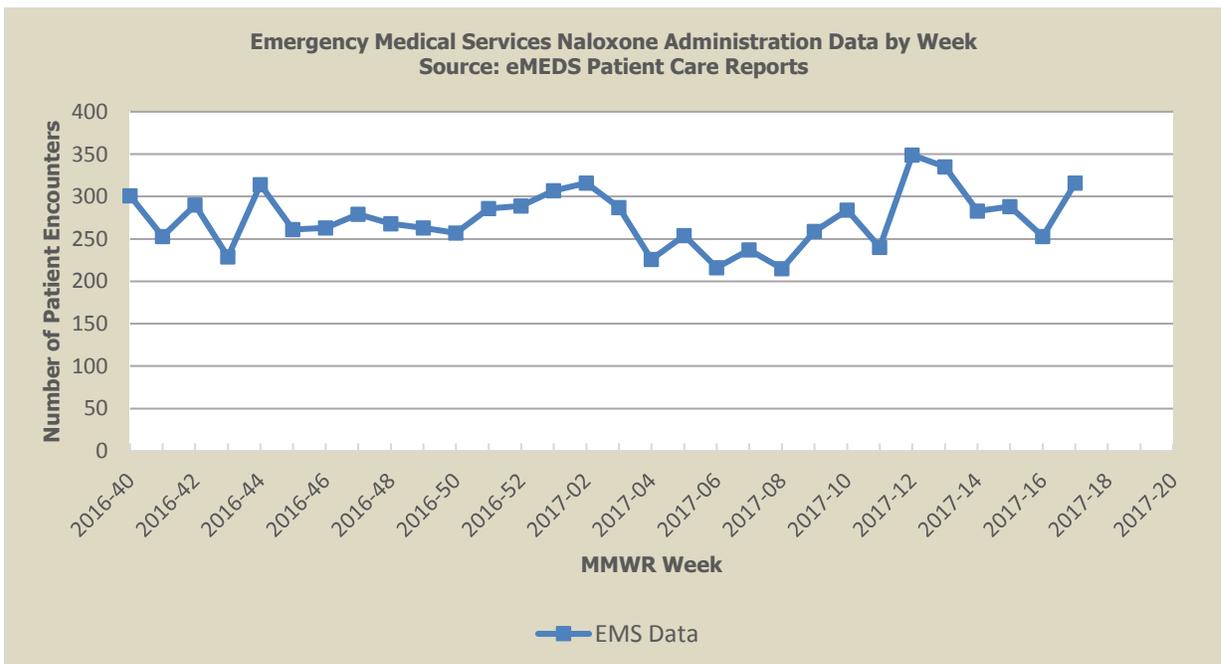
The purpose of this section is to characterize non-fatal ED visit trends for acute unintentional overdose by Heroin, Opioid or Unspecified substance among Maryland residents captured by ESSENCE data, including chief complaint and discharge diagnosis. ED visits that are identified as unintentional overdose by Heroin, Opioid or Unspecified substance include those with medical and non-medical use of a prescription Opioid or where the substance is not specified, given evidence that the majority of fatal overdoses are Opioid-related.



Disclaimer on ESSENCE Overdose related data: ESSENCE chief complaint and discharge diagnosis query for overdose-related illness includes but is not limited to the following terms: heroin, opioid, speedball, dope, fentanyl, naloxone, narcan, and overdose.

Non-fatal Overdose ED Visit Baseline Data January 1, 2010 - Present					
Health Region	1&2	3	4	5	Maryland
Mean Rate*	0.33	0.42	0.37	0.15	0.30
Median Rate*	1.01	1.32	1.10	0.48	0.99

* Per 100,000 Residents



Disclaimer on eMEDS naloxone administration related data: These data are based on EMS Pre-hospital care reports where the EMS provider has documented that they administered naloxone. The administration of naloxone is based on the patient's signs and symptoms and not on any diagnostic tests. These data are reported for trending purposes only.

PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of April 20, 2017, the WHO-confirmed global total (2003-2016) of human cases of H5N1 avian influenza virus infection stands at 858, of which 453 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 53%.

HUMAN AVIAN INFLUENZA:

H7N9 AVIAN INFLUENZA (CHINA): 29 April 2017, the Chinese province of Gansu (northwest) reported 3 cases of avian influenza H7N9. A total of 2 more cases were reported this month [April 2017] in the cities of Jiuquan and Zhangye. The 2 women are currently being treated in local hospitals. One of them is in a critical state, the report says. All 3 patients were involved in the live poultry trade before being infected. Gansu has intensified supervision of poultry markets. Read More: <http://www.promedmail.org/post/5000143>

H7N9 AVIAN INFLUENZA (CHINA): 4 May 2017. According to the HFPC [Health and Family Planning Commission] of Gansu, 2 new human H7N9 AIV cases have been confirmed: a 43 year old female who lived in Ganzhou district of Zhangye city of Gansu province; a 47 year old female who lived in Suzhou district of Jiuquan city of Gansu province. Both patients had live poultry contact history as they all worked in live poultry slaughter house in their cities. Read More: <http://www.promedmail.org/post/5012923>

[There were no reports of human cases of avian influenza in the United States at the time that this report as compiled.]

NATIONAL DISEASE REPORTS

POWASSAN VIRUS ENCEPHALITIS (MAINE): 29 April 2017, A Rockland-area artist fell ill almost immediately after finding a tick stubbornly embedded in her shoulder that November [2013]. She died just weeks later. Powassan virus hadn't been documented in Maine in nearly a decade. Much rarer than Lyme disease, but transmitted more quickly and potentially more devastating, Powassan had appeared in only 50 cases across the country over the previous decade. Since then, 2 cases of Powassan have been reported in Maine, both in Cumberland County. The virus caused encephalitis, or brain swelling, but thankfully neither case was fatal. Read More: <http://www.promedmail.org/post/5003798>

CANDIDA AURIS (NEW YORK): 30 April 2017, A local patient infected with a "superbug" fungus died from "complex medical issues" several weeks after coming to Rochester General Hospital, according to Rochester Regional Health. The patient, a New York City resident, died in March 2017, said Veronica Chiesi Brown, medical relations specialist for Rochester Regional Health, which oversees the hospital. Read More: <http://www.promedmail.org/post/5004770>

TICK-BORNE RELAPSING FEVER (TEXAS): 02 May 2017, Tickborne relapsing fever (TBRF) was first reported in the USA more than 100 years ago but is often difficult to identify, given its rarity and variety of clinical presentations. We describe a case of culture-confirmed TBRF caused by *Borrelia turicatae* acquired by a soldier during a military training exercise in Texas, USA. Read More: <http://www.promedmail.org/post/5008476>

INTERNATIONAL DISEASE REPORTS

ROCKY MOUNTAIN SPOTTED FEVER (MEXICO): 30 April 2017, So far in 2017, 20 confirmed cases of rickettsial infection, transmitted by tick bite, have been registered in Chihuahua. Of these, 9 people have died, according to Ministry of Health staff. In 2016 in the state of Chihuahua, 55 cases of rickettsiosis were confirmed, of which 17 people died. Rickettsiosis is a disease that causes fever, headache and general discomfort accompanied by red patches on the skin. Once the disease is diagnosed, only the doctor can indicate the right medication. Read More: <http://www.promedmail.org/post/5004696>

TYPHOID FEVER (KENYA): 30 April 2017, Poor lab capability and surveillance and lack of sanitation are enabling the spread of a typhoid strain that is resistant to drugs. Origins can be traced to the Nepalese capital, Kathmandu. H58, an older strain of typhoid causing *Salmonella Typhi*, has edged out other strains to become resistant to more than 60 per cent of locally available and affordable antimicrobials.

ROCKY MOUNTAIN SPOTTED FEVER (PANAMA): 30 April 2017, *Rickettsia rickettsia* a tick-borne disease that is very rare in the country caused the death of 2 children. It cannot be stressed enough that early recognition of this disease is quite important in minimizing morbidity and mortality. This is especially true in areas where the infection is not as classically known. Both victims, added Barahona, had the same symptoms: high fever, muscle aches and rash. The Director of Health wanted to reassure the population and said that rickettsiosis is a disease for which there are antibiotics and which has "very low prevalence in Panama," and is transmitted by ticks living in rural areas and not in urban areas. Read More: <http://www.promedmail.org/post/5004697>

UNDIAGNOSED DISEASE (LIBERIA): 1 May 2017, Cumulatively, there are 20 cases and 11 deaths (10 deaths in Sinoe county and one death in Montserrado county). 5 patients being managed at the FJ Grante hospital have stabilized and none is critical. All samples collected were confirmed negative of Ebola virus disease (EVD). Read More: <http://www.promedmail.org/post/5005335>

LEPTOSPIROSIS (DOMINICAN REPUBLIC): 2 May 2017, According to data from the country's Ministry of Public Health, at least 20 people have died this year [2017] in the Dominican Republic because of leptospirosis, 13 more than in the same period of 2016. Leptospirosis is an acute bacterial disease that affects both humans and animals. The infection is acquired through contact with stagnant water and soils contaminated with urine from reservoir animals, such as rats and other animals of the canine, porcine, and caprine species. Read More: <http://www.promedmail.org/post/5007424>

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmm.maryland.gov/>, or follow us on Facebook at www.facebook.com/MarylandOPR.

More data and information on influenza can be found on the DHMM website:
<http://phpa.dhmm.maryland.gov/influenza/fluwatch/Pages/Home.aspx>

Please participate in the Maryland Resident Influenza Tracking System (MRITS): <http://flusurvey.dhmm.maryland.gov>

NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

Prepared By:

Office of Preparedness and Response, Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202, Baltimore, MD 21201
Fax: 410-333-5000

Anikah H. Salim, MPH, CPH
Biosurveillance Epidemiologist
Office: 410-767-2074
Email: Anikah.Salim@maryland.gov

Jessica Goodell, MPH
Temporary Epidemiology Field Assignee, CDC
Office: 410-767-6745
Email: Jessica.Goodell@maryland.gov

Adejare (Jay) Atanda, BDS, MPH, CPH
Biosurveillance Epidemiologist
Office: 410-767-5668
Email: Adejare.Atanda@maryland.gov

Kamilla Keldiyarova
Intern
Office of Preparedness and Response
Email: Kamilla.Keldiyarova@maryland.gov

Appendix 1: ESSENCE Syndrome Definitions and Associated Category A Conditions

Syndrome	ESSENCE Definition	Category A Conditions
Botulism-like	(Botulism or (DifficultyFocusing and DifficultySpeaking) or (DifficultySpeaking and DifficultySwallowing) or (DifficultySwallowing and DifficultyFocusing) or DoubleVision or FacialParalysis or GuillainBarre or Ptosis) and not GeneralExclusions	Botulism
Fever	(Chills or (FeverPlus and (Drowsiness or Seizure)) or FeverOnly or SepsisGroup or ViralSyndrome) and not GeneralExclusions	N/A
Gastrointestinal	(AbdominalCramps or AbdominalPainGroup or Diarrhea or FoodPoisoning or Gastroenteritis or GIBleeding or Peritonitis or Vomiting) and not (GeneralExclusions or Gynecological or Obstetric or Reproductive or UrinaryTract)	Anthrax (gastrointestinal)
Hemorrhagic Illness	(FeverOrChills and (AcuteBloodAbnormalitiesGroup or BleedingFromMouth or BleedingGums or GIBleeding or Hematemesis or Hemoptysis or Nosebleed or Petechiae or Purpura)) and not GeneralExclusions	Viral Hemorrhagic Fever
Localized Lesion	(Boils or Bump or Carbuncle or DepressedUlcer or Eschar or Furuncle or InsectBite or SkinAbscess or (SkinSores and not AllOverBody) or SkinUlcer or SpiderBite) and not (GeneralExclusions or Decubitus or Diabetes or StasisUlcer)	Anthrax (cutaneous) Tularemia
Lymphadenitis	(BloodPoisoning or Bubo or CatScratchDisease or SwollenGlands) and not GeneralExclusions	Plague (bubonic)
Neurological	(([Age<75] and AlteredMentalStatus) or (FeverPlus and (Confusion or Drowsiness or Petechiae or StiffNeck)) or Delirium or Encephalitis or Meningitis or UnconsciousGroup) and not GeneralExclusions	N/A
Rash	(ChickenPox or Measles or RashGeneral or Roseola or (Rubella and not Pregnancy) or Shingles or (SkinSores and AllOverBody) or Smallpox) and not GeneralExclusions	Smallpox
Respiratory	(Anthrax or Bronchitis or (ChestPain and [Age<50]) or Cough or Croup or DifficultyBreathing or Hemothorax or Hypoxia or Influenza or Legionnaires or LowerRespiratoryInfection or Pleurisy or Pneumonia or RespiratoryDistress or RespiratoryFailure or RespiratorySyncytialVirus or RibPain or ShortnessOfBreath or Wheezing) and not (GeneralExclusions or Cardiac or (ChestPain and Musculoskeletal) or Hyperventilation or Pneumothorax)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Severe Illness or Death	CardiacArrest or CodeGroup or DeathGroup or (Hypotension and FeverPlus) or RespiratoryArrest or SepsisGroup or Shock	N/A

Appendix 2: Maryland Health and Medical Region Definitions

Health and Medical Region	Counties Reporting to ESSENCE
Regions 1 & 2	Allegany County Frederick County Garrett County Washington County
Region 3	Anne Arundel County Baltimore City Baltimore County Carroll County Harford County Howard County
Region 4	Caroline County Cecil County Dorchester County Kent County Queen Anne’s County Somerset County Talbot County Wicomico County Worcester County
Region 5	Calvert County Charles County Montgomery County Prince George’s County St. Mary’s County

